

10/735,364

PATENTAMENDMENT A (IN RESPONSE TO PAPER NO. 032305
(OFFICE ACTION DATED MARCH 29, 2005))SPECIFICATION

At page 9, please amend paragraph 22 as follows:

[0022] Referring to Figure 2, a transimpedance amplifier with controllable noise reduction in accordance with one embodiment of the presently claimed invention includes a transimpedance amplifier 4, voltage comparison circuit A2 and current source II, as discussed above, but provides for comparison of the DC component V1 of the output signal voltage Vout with a different threshold voltage which is a ~~sum of difference~~ Vref-Voff between the reference voltage Vref (corresponding to the desired DC bias point for the amplifier output terminal 5) and an offset voltage Voff.

At pages 10-11, please amend paragraph 25 as follows:

[0025] At larger amplitudes where the DC component of the photodiode current Is produces a voltage Vr2 across the feedback resistor R2 which is greater than the minimum feedback resistor voltage Vr2min discussed above, the DC voltage Vr2 across the feedback resistor R2 is greater than the offset voltage Voff. As a result, the DC component V1 of the output voltage Vout at the amplifier output terminal 5 is greater than the threshold voltage of ~~Vref+Voff~~ Vref-Voff. Accordingly, the output V2 of the voltage comparison circuit A2 goes high, thereby turning on the current source II, which provides the compensation current Ic to remove the dc component of the photodiode current Is from the input node. This compensation current Ic is preferably equal to the difference between the actual DC component of the present photodiode current Is and the value of the DC component of the photodiode current Is corresponding to the minimum feedback resistor voltage Vr2min discussed above.

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